

ABSTRACT OF THE DISCLOSURE

A distillation unit (10) includes a filter (116) through which feed water passes before it is introduced into a rotary heat exchanger (32) for evaporation and subsequent condensation. During a normal mode of operation, liquid that has not evaporated as a result of passage through the rotary heat exchanger's evaporation chambers (56) is recirculated for reintroduction into those chambers, together with a minor amount of feed liquid from the filter to make up for evaporation. At the same time, some filtered feed water is fed into one side of a transfer pump (166), where it slowly accumulates. Periodically, though, during short flushing-mode periods, the erstwhile recirculating liquid is redirected at a relatively high flow rate through the filter (116) in the reverse direction, thereby flushing it. In flowing rapidly from the filter, it also rushes into the other side of the transfer pump (166), forcing the feed liquid that had accumulated in it to take the place of the recirculating liquid as the major constituent of the liquid sprayed into the evaporation chambers. This periodic flushing reduces particulate loading in the filter.